

WHAT IS CLAIMED IS :

1. A method for dimension rule checking, comprising:
 - scanning all basic units in a database, wherein all the scanned basic units in said database are included in a basic set;
 - 5 checking said basic set according to said rules set, wherein all the checked basic units in said basic set are included in a checked set;
 - 10 distinguishing a warning set in said basic set from said checked set; and
- 15 2. The method according to claim 1, wherein said basic unit is a line segment.
- 15 3. The method according to claim 1, wherein said basic unit is an edge of a polygon.
- 20 4. The method according to claim 1, wherein said rules set comprises a plurality of spacing checking rules, and said checked set comprises said basic units that are violated and inviolate according to said rules set.
5. The method according to claim 1, further comprising scanning all

basic units related to a bulk in said database, wherein all scanned basic units related to said bulk are comprised in a bulk set.

6. The method according to claim 6, wherein said checked basic units

5 in said bulk set are directly faced said bulk.

7. The method according to claim 6, wherein said checked basic units

in said bulk set are the edges of said bulk.

10 8. The method according to claim 5, further comprising checking said bulk by said rules set, wherein all checked basic units in said bulk set are comprised in a checked bulk set.

9. The method according to claim 6, wherein said basic units that are

15 also comprised in said checked bulk set are further excluded from said warning set.

10. The method according to claim 6, further comprising refining said

rules set before outputting said warning set, wherein said rules set is

20 refined according to said warning set.

11. A verifier for dimension rule checking, comprising:

a rules set for dimension rule checking;

scanning means for scanning all basic units in a database, wherein all the scanned basic units in said database are included in a basic set;

5 checking means for checking said basic units according to said rules set, wherein all the checked basic units are included in a checked set;

comparison means for distinguishing a warning set in said basic set from checked set; and

output means for outputting said warning set.

10

12. The verifier according to claim 10, wherein said basic unit is a line segment.

15

13. The verifier according to claim 10, wherein said basic unit is an edge of a polygon.

20

14. The verifier according to claim 10, wherein said rules set comprises a plurality of spacing checking rules, and said checked set comprises said basic units that are violated and inviolate according to said rules set.

15. The verifier according to claim 10, wherein said scanning means further comprises scanning all basic units related to a bulk in said

database, wherein all scanned basic units related to said bulk are comprised in an bulk set.

16. The verifier according to claim 15, wherein said checked basic
5 units in said bulk set are directly faced said bulk.

17. The verifier according to claim 15, wherein said checked basic units in said bulk set are the edges of said bulk.

10 18. The verifier according to claim 15, wherein said checking means further comprises checking said bulk by said rules set, wherein all checked basic units in said bulk set are comprised in a checked bulk set.

15 19. The verifier according to claim 16, wherein said basic units that are also comprised in said checked bulk set are further excluded from said warning set.

20 20. The verifier according to claim 16, further comprise refining said rules set before outputting said warning set, wherein said rules set is refined according to said warning set.